REMARKS

Status of the Claims

Claims 12-34 are pending in this application.

Claims 12-34 are rejected.

1. Applicant's remarks are set forth below directly corresponding with Examiner's numbered paragraph rejections paragraph by paragraph. In addition, Applicant has refrained from amending the Claims and reiterate their submissions made in their Non-Compliant Response of the 25th September 2009. Where Claims 24 to 34 contain substantially the same features as Claims 13 to 23, Applicant would hereby make corresponding observations in relation to Claims 24 to 34 as made in respect of Claims 13 to 23 in their Non-Compliant Response. However, Applicant makes the following further observations in the light of the citing of Bosley (US4,690,371) and of unsupported assertions of motive newly made by the Examiner.

2. Rejection of Claims 13-15, 19-20, 24-26, and 30-31 Under 35 U.S.C. § 103(a)

Claims 13-15, 19-20, 24-26, and 30-31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,782,860 to Sakaguchi et al. (hereafter "Sakaguchi") in view of U.S. Patent No. 4,690,371 to Bosley (hereafter "Bosley"). Applicant requests reconsideration of the rejection based on the following remarks.

The Office Action states that Sakaguchi lacks the inductor encircling the magnetic portions. The Office Action also states that Sakaguchi discloses a valve device, a valve obturating member/in the form of a unit 3 and 4 in said flow path and movable between a more obturating position and a less obturating position for

permitting lesser and greater flows of said fluid along said path, which flows urge said member in the sense from said more obturating position to said less obturating position (Figs. 1 or 3), said valve obturating member including magnetic portions 4, an electrically energized inductor 5 which, while remaining stationary relative to said body and while electrically energized, acts upon said valve obturating member with a force to urge said valve obturating member in the sense from said less obturating position to said more obturating position, an electrical supply arrangement connected to said inductor, and a control arrangement 21 which is connected to said electrical supply arrangement and which serves to adjust the magnitude of the current supplied to said inductor by said supply arrangement and thereby to adjust said force. The Office Action also states that there are no moving parts other than said arrangement and thereby to adjust said force. In addition, the Office Action states that Bosley discloses the inductor encircling the magnetic portions and that is would have been obvious to make the inductor of Sakaguchi encircle the magnetic portions as disclosed by Bosley in order to make the valve shorter to make it smaller and/or protecting the magnetic portions as they would be inside the inductor. The Office Action also states that the method is seen as practiced by the apparatus. The Office Action also states that a valve seat 2 on said flow-path, said more obturatin member is fully closed on the valve seat, so as to be applied to the seat in a substantially fluid-tight manner, and said valve seat facing downstream of said flow path, whereby said less obturating position is further downstream in said flow path than is said more obturating position.

Establishing a prima facie case of obviousness requires the reference teach or render obvious all the elements of the inventive combination of the rejected claims. Dependent claims set forth in the present application include all of the limitations of the

claims from which they depend. Therefore, these combinations must also be taught or rendered obvious by the cited reference. Furthermore, a prima facie case of obviousness cannot be established where one or more of the references in the proposed combination teaches away from the proposed combination. *In re Grassili* 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed Cir. 1983).

Applicant respectfully submits that Shakaguchi whether taken alone or in combination with Bosley fails to teach or render obvious the inventive combination of independent claims 13 and 19 of the present invention. Applicant respectfully submits that independent claims 13 and 19 of the present invention both require "a valve obturating member" and respective limitations. Sakaguchi does not teach this limitation. As taught in Column 1, lines 42-68 of Sakaguchi, in a prior art flow control valve a ball-form valve body 3 co-operates with a valve seat 2a away from which it is urged by incoming pressurised fluid. By energization of the electromagnet 5, the throttle adjusting plate 4 can be attracted towards the electromagnet 5 and so urge the body 3 towards the valve seat 2a. By varying the electric current or voltage applied to the coil of the electromagnet 5, the attractive force acting upon the throttle adjusting plate 4 can be varied, so that the force urging the body 3 towards the valve seat can be continuously adjusted. Sakaguchi also teaches that, in its preferred embodiment, the body 3 is usually a steel ball, or it may be of a plastics material. See Col. 3, lines 37-52 of Sakaguchi. Applicant respectfully maintains that the Final Office Action has again improperly stretched the meaning of "member" in claims 13 and 19 of the present invention to encompass the two separate 3 and 4 of Sakaguchi. Furthermore, Applicant respectfully submits that in the Final Office Action the Examiner makes no comment upon the Applicant's submissions on this point. Applicant maintains that replacing the

valve obturating member (10) of claims 13 and 19 of the present invention by two such separate members of Sakaguchi would be contrary to an important aim of the present invention, which is to enable the valve device to be of very simple construction, with no moving parts other than the valve obturating member itself, as stated at lines 9 to 11 of page 4 of the present Specification. Applicant submits that Sakaguchi does not teach that the two items 3 and 4 of Sakaguchi could be a single member. Thus, Applicant submits that Sakaguchi does not teach the required valve obturating member and respective limitations of the present invention. Therefore, removal of the rejection and allowance of independent claims 13 and 19, and claims 14-15 and 20 depending respectively therefrom, is respectfully requested. When combined with Sakaguchi, Bosley still fails to remedy the deficiencies of Sakaguchi since Bosley teaches a modulating electromagnetic control valve 10 in which a housing 16 containing a magnet 14 with interior pole pieces 17 and 18 is adjustable in position, generally against the action of spider springs 21 and 22, axially of the valve, under the effect of the solenoid coil sections 12 and 13. See Fig. 1, and Col. 4, line 45 to Col. 5, line 26 of Bosley. The Office Action asserts that it would have been obvious to have made the conductor 5 of Sakaguchi encircle the magnetic portions 4, as disclosed by Bosley, in order to make the valve shorter, to make it smaller and/or to protect the magnetic portions 4 as they would be inside the inductor 5. Applicant respectfully submit that it would actually have been obvious to a person of ordinary skill <u>not</u> to make the inductor 5 encircle the magnetic portions 4, since the inductor 5 would thereby be of much greater internal diameter, with at least two disadvantageous results. One would have been that the cover 6 and the housing flange to which it is attached would have become of much greater diameter. The second would have been the corresponding unnecessarily

increased cost of the inductor. For the very small stroke required of the plate 4 the Sakaguchi arrangement of having the magnetic portions at one axial end of the coil 5 is relatively ideal, which is why, in the Anderson's (US3,758,071) disclosure, with a 0.010 inch stroke (see line 53 of column 3 of Anderson) of the valve member 4, a corresponding arrangement of that member and the inductor 23 is provided. Furthermore, Applicant submits that Sakaguchi is concerned with a particular type of electromagnetic flow control valve in which a throttle adjusting plate of magnetic material is used to operate a valve obturating member, whereas Bosley is concerned with a very different type of electromagnetic flow control valve in which the valve obturating member itself provides the magnetic material to be driven by the inductor(s), so that the skilled person would not even consider applying Bosley to Sakaguchi. Referring to paragraph 13 of the Final Office Action, Applicant agrees with the Examiner's statement that an electrically energisable inductor which encircles magnetic portions is well known in the art. The Applicants would add that the arrangement was well known before the filing date of Sakaguchi, so clearly demonstrating that the skilled inventors of that reference would have known of that arrangement and rejected it, presumably because it was unsuitable for their particular valve.

In addition, Applicant respectfully maintains that claims 24 and 30 further specify a valve obturator in the form of a unit. Applicant maintains that even if the Examiner still considers that the separate members 3 and 4 of Sakaguchi can still constitute a "member" in the Examiner's interpretation of claims 13 to 23 in the present application, Applicant submits that claims 24 and 30 refer to a valve obturator in the form of a unit, to bring out the distinction even more clearly. Applicant respectfully submits that the Examiner has not commented upon Applicants' previous submission in relation to

specifying a valve obturator in the form of a unit, other than to assert that the items 3 and 4 in Sakaguchi are "in the form of a unit". The Applicant would particularly point out that the item 3 in Sakaguchi is described as "a spherical valve body" (see lines 30 and 31 of column 3 of Sakaguchi, for example), whereas the item 4 is described as a "throttle adjusting plate" (see lines 57 and 58 of column 3 of Sakaguchi, for example); there is no indication that the item 4 in itself performs any obturating function, which appears to be performed solely by the item 3 and there is no disclosure in Sakaguchi that the item 3 includes magnetic portions. Therefore, removal of the rejection and allowance of independent claims 24 and 30, and claims 25-29 and 31 depending respectively therefrom, is respectfully requested.

For all of the above reasons, the proposed combination of Sakaguchi in view of Bosley does not teach or render obvious independent claims 13, 19, 24 and 30. When Sakaguchi and Bosley are combined the proposed combination fails to teach or render the inventive combination as set forth in independent claims 13, 19, 24, and 30 of the present invention. Therefore, removal of the rejection of claims 13, 19, 24, and 30 and allowance thereof is respectfully requested.

Claims 14-15, 20, 25-29, and 31 incorporate all of the limitations of independent claims 13, 19, 24, and 30 from which they depend respectively and further define the invention over the art cited by the Examiner. Applicant respectfully submits that Sakaguchi whether taken alone or in combination with Bosley fails to teach or render obvious the inventive combinations of the features of claims 14-15, 20, 25-29, and 31 with claims 13, 19, 24, and 30 respectively. Therefore, removal of the rejection of claims 14-15, 20, 25-29, and 31 and allowance thereof is respectfully requested.

3. Rejection of Claims 13-15, 19-20, 24-26, and 30-31 Under 35 U.S.C. § 103(a)

Claims 13-15, 19-20, 24-26, and 30-31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,758,071 to Anderson et al (hereafter "Anderson") in view of U.S. Patent No. 4,782,860 to Sakaguchi et al. (hereafter "Sakaguchi") in view of U.S. Patent No. 4,690,371 to Bosley (hereafter "Bosley"). Applicant requests reconsideration of the rejection based on the following remarks.

The Office Action states that Anderson discloses a valve device for controlling fluid flow, having a hollow body bounding a flow path for the fluid through said valve device, a valve obturating member/in the form of a unit 4 in said flow path and movable between a more obturating position and a less obturating position for permitting lesser and greater flows of said fluid along said path, which flows urge said member in the sense from said more obturating position to said less obturating position (Fig. 1), said valve obturating member including magnetic portions, an electrically energizable inductor 23, which, while remaining stationary relative to said body and while electrically energized, acts upon said valve obturating member with a force to urge said valve obturating member in the sense from said less obturating position to said more obturating position, and an electrical supply arrangement connected to said inducter. The Office Action also states that Anderson lacks a control arrangement which is connected to said electrical supply arrangement and which serves to adjust the magnitude of the current supplied to said inductor by said supply arrangement and thereby to adjust said force. The Office Action states that Sakaguchi discloses the control arrangement. The Office Action also states that Anderson lacks the inductor encircling the magnetic portions and that Bosley discloses the inductor encircling magnetic portions.

Establishing a prima facie case of obviousness requires the reference teach or render obvious all the elements of the inventive combination of the rejected claims. Dependent claims set forth in the present application include all of the limitations of the claims from which they depend. Therefore, these combinations must also be taught or rendered obvious by the cited reference. Furthermore, a prima facie case of obviousness cannot be established where one or more of the references in the proposed combination teaches away from the proposed combination. *In re Grassili* 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed Cir. 1983).

Applicant respectfully submits that Shakaguchi whether taken alone or in combination with Bosley fails to teach or render obvious the inventive combination of independent claims 13, 19, 24, and 30 of the present invention. The Office Action asserts that it would have been obvious to have used the control arrangement of Sakaguchi to adjust the magnitude of the current supplied to the inductor 23 of Anderson and thereby to adjust the force of Anderson in order to provide the minimum needed force to close the valve. Applicant respectfully submits that pursuing that argument by the Examiner, in order to detect that the valve had just closed, there would have needed to have been added to Anderson some means for performing that function, which would have led to added complication, but that would have been completely contrary to one of the objects of the invention of Anderson set out from line 66 of column 1 to line 2 of column 2, which was that the valve should be "unusually simple and inexpensive both in design and operation". When combined with Anderson and Sakaguchi, Bosley still fails to remedy the deficiencies of Anderson in view of Sakaguchi. The Office Action asserts that it would have been obvious to have made the inductor 23 of Anderson encircle the magnetic portions 4 of Anderson as disclosed by

Bosley in order to make the valve shorter, to make it smaller and/or to protect the magnetic portions 4 as they would be inside the inductor. Applicant respectfully points out that it would have been obvious to the skilled person not to make the inductor 23 of Anderson encircle the magnetic portions 4, for the very reasons previously argued under paragraph 2 for not applying Bosley to Sakaguchi in that the inductor 5 would thereby be of much greater internal diameter, with at least two disadvantageous results, as set forth previously above. Applicant would stress that the actual positioning of the coil 23 relative to the valve member 4 is relatively ideal (compared with arranging that the coil 23 encircles that member 4), bearing in mind that the primary object of Anderson was to provide a magnetically actuated valve utilising Bernoulli fluid forces to open the valve (and also utilising electromagnetic forces to close it), with the arrangement being such that the closing could be accomplished with the use of very low electrical power, as explained at lines 60 to 65 of column 1 of Anderson. Referring again to paragraph 13 of the Office Action, since arranging for an electrically energisable inductor to encircle magnetic portions was well known in the art before the filing date of Anderson, the skilled inventors of that reference would have known of that arrangement and rejected it, presumably because it was unsuitable for their particular valve.

For the above reasons, the proposed combination of Anderson in view of Sakaguchi in view of Bosley does not teach or render obvious independent claims 13, 19, 24 and 30. When Anderson, Sakaguchi and Bosley are combined the proposed combination fails to teach or render the inventive combination as set forth in independent claims 13, 19, 24, and 30 of the present invention. Therefore, removal of

the rejection of claims 13, 19, 24, and 30 and allowance thereof is respectfully requested.

Claims 14-15, 20, 25-29, and 31 incorporate all of the limitations of independent claims 13, 19, 24, and 30 from which they depend respectively and further define the invention over the art cited by the Examiner. Applicant respectfully submits that Anderson whether taken alone or in combination with Sakaguchi and Bosley fails to teach or render obvious the inventive combinations of the features of claims 14-15, 20, 25-29, and 31 with claims 13, 19, 24, and 30 respectively. Therefore, removal of the rejection of claims 14-15, 20, 25-29, and 31 and allowance thereof is respectfully requested.

4. Rejection of Claims 13-16, 19-21, 24-27, and 30-32 Under 35 U.S.C. § 103(a)

Claims 13-16, 19-21, 24-27, and 30-32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,782,860 to Sakaguchi et al. (hereafter "Sakaguchi") in view of U.S. Patent No. 5,351,934 to Jensen et al. (hereafter "Jensen"). Applicant requests reconsideration of the rejection based on the following remarks.

The Office Action states that Sakaguchi lacks the inductor encircling the magnetic portions and that Jensen discloses the inductor encircling the magnetic portions. The Office Action also states that it would have been obvious to make the inductor of Sakaguchi encircle the magnetic portions as disclosed by Jensen in order to make the valve shorter to make it smaller and/or protecting the magnetic portions a they would be inside the inductor. The Office Action states that Sakaguchi lacks a plurality of energizable inductors and that Jensen discloses a plurality of energizable inductors 26 and 28. The Office Action states that it would have been obvious to use a plurality of

energizable inductors as disclosed by Jensen in place of the single inductor of Sakaguchi as a matter of simple substitution and/or to provide a stronger magnetic field.

Establishing a prima facie case of obviousness requires the reference teach or render obvious all the elements of the inventive combination of the rejected claims. Dependent claims set forth in the present application include all of the limitations of the claims from which they depend. Therefore, these combinations must also be taught or rendered obvious by the cited reference. Furthermore, a prima facie case of obviousness cannot be established where one or more of the references in the proposed combination teaches away from the proposed combination. *In re Grassili* 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed Cir. 1983).

Applicant respectfully submits that Shakaguchi whether taken alone or in combination with Bosley fails to teach or render obvious the inventive combination of independent claims 13, 19, 24, and 30 of the present invention. For the reasons mentioned above in relation to the application of Bosley to Sakaguchi, again, the skilled person would find it obvious <u>not</u> to make the inductor 5 of Sakaguchi encircle the magnetic portions 4. The Office Action goes on to state that Jensen discloses a plurality of energisable inductors 26 and 28. These are arranged end-to-end. See Fig. 2 of Jenson. The Office Action asserts that it would have been obvious to have used a plurality of energisable inductors as disclosed by Jensen in place of the single inductor 5 of Sakaguchi as a matter of simple substitution and/or to provide a stronger magnetic field. Applicant respectfully submits that the Office Action has not explained why the skilled person would have had any motivation for that simple substitution. Applicant respectfully points out that providing in Sakaguchi a plurality of inductors as disclosed by Jensen would merely have added complication and expense and would be

considered disadvantageous by a person of ordinary skill in the art. In addition, Applicant respectfully submits that the Office Action does not explain why such replacement would have provided a stronger magnetic field than a single inductor of the same volume.

For the above reasons, the proposed combination of Sakaguchi in view of Jensen does not teach or render obvious independent claims 13, 19, 24 and 30. When Sakaguchi and Jensen are combined the proposed combination fails to teach or render the inventive combination as set forth in independent claims 13, 19, 24, and 30 of the present invention. Therefore, removal of the rejection of claims 13, 19, 24, and 30 and allowance thereof is respectfully requested.

Claims 14-15, 20, 25-29, and 31 incorporate all of the limitations of independent claims 13, 19, 24, and 30 from which they depend respectively and further define the invention over the art cited by the Examiner. Applicant respectfully submits that Sakaguchi whether taken alone or in combination with and Jensen fails to teach or render obvious the inventive combinations of the features of claims 14-15, 20, 25-29, and 31 with claims 13, 19, 24, and 30 respectively. Therefore, removal of the rejection of claims 14-15, 20, 25-29, and 31 and allowance thereof is respectfully requested.

5. Rejection of Claims 13-16, 19-21, 24-27, and 30-32 Under 35 U.S.C. § 103(a)

Claims 13-16, 19-21, 24-27, and 30-32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,758,071 to Anderson et al. (hereafter "Anderson") in view of U.S. Patent No. 4,782,860 to Sakaguchi et al (hereafter "Sakaguchi") in view of U.S. Patent No. 5,351,934 to Jensen et al. (hereafter "Jensen"). Applicant requests reconsideration of the rejection based on the following remarks.

The Office Action states that Anderson lacks the inductor encircling the magnetic portions and that Jensen discloses the inductor encircling the magnetic portions. The Office Action states that it would have been obvious to make the inductor of Anderson encircle the magnetic portions as disclosed by Jensen in order to make the valve shorter to make it smaller and/or protecting the magnetic portions as they would be inside the inductor. The Office Action also states that Anderson lacks a plurality of energizable inductors to constitute a linear motor and that Jensen discloses a plurality of energizable inductors 26 and 28 to constitute a linear motion. The Office Action states that it would have been obvious to use a plurality of energizable inductors as disclosed by Jensen in place of the single inductor of Anderson as a matter of simple substitution and/or provide a stronger magnetic field.

Establishing a prima facie case of obviousness requires the reference teach or render obvious all the elements of the inventive combination of the rejected claims. Dependent claims set forth in the present application include all of the limitations of the claims from which they depend. Therefore, these combinations must also be taught or rendered obvious by the cited reference.

Applicant respectfully submits that Shakaguchi whether taken alone or in combination with Bosley fails to teach or render obvious the inventive combination of independent claims 13, 19, 24, and 30 of the present invention. The Office Action asserts that it would have been obvious to have made the inductor 23 of Anderson encircle the magnetic portions 4 thereof as disclosed by Jensen in order to make the valve shorter, to make it smaller and/or to protect the magnetic portions 4 as they would be inside the inductor 23. Applicant respectfully submits that it would have been obvious not to do that for the same reasons as given under paragraph 3 above in

respect of the application of Bosley to Anderson in that the inductor would thereby be of much greater internal diameter with disadvantageous results. Further, the Office Action asserts that it would have been obvious to the skilled person to have used a plurality of energisable inductors as disclosed by Jensen in place of the single inductor 23 of Anderson as a matter of simple substitution and/or to provide a stronger magnetic field. Applicant respectfully submits that, again, the Office Action has not explained why the performing of such simple substitution, which would increase complication and expense of Anderson and would thus be contrary to the object expressed from line 66 of column 1 to line 2 of column 2 of Anderson, would be performed by any skilled person. Applicant submits that, again, the Office Action has not explained why the replacement of the single inductor 23 by a plurality of inductors as disclosed by Jensen (presumably encircling the magnetic portions 4 according to the Examiner's argument), would have provided a stronger magnetic field than the single inductor.

For the above reasons, the proposed combination of Sakaguchi in view of Jensen does not teach or render obvious independent claims 13, 19, 24 and 30. When Sakaguchi and Jensen are combined the proposed combination fails to teach or render the inventive combination as set forth in independent claims 13, 19, 24, and 30 of the present invention. Therefore, removal of the rejection of claims 13, 19, 24, and 30 and allowance thereof is respectfully requested.

Claims 14-15, 20, 25-29, and 31 incorporate all of the limitations of independent claims 13, 19, 24, and 30 from which they depend respectively and further define the invention over the art cited by the Examiner. Applicant respectfully submits that Sakaguchi whether taken alone or in combination with and Jensen fails to teach or render obvious the inventive combinations of the features of claims 14-15, 20, 25-29,

and 31 with claims 13, 19, 24, and 30 respectively. Therefore, removal of the rejection of claims 14-15, 20, 25-29, and 31 and allowance thereof is respectfully requested.

6. Rejection of Claims 17, 22, 28, and 33 Under 35 U.S.C. § 103(a)

Claims 17, 22, 28, and 33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,782,860 to Sakaguchi et al (hereafter "Sakaguchi") in view of U.S. Patent No. 5,351,934 to Jensen et al. (hereafter "Jensen") in view of U.S. Patent No. 6,230,606 to Sato. Applicant requests reconsideration of the rejection based on the following remarks.

The Office Action states that Sakaguchi lacks a linear encoder to determine the position of the valve and that Sato discloses a linear encoder 19 to determine the position of the valve. The Office Action states that it would have been obvious to use a linear encoder as disclosed by Sato in the valve of Sakaguchi in order to fix the position of the valve by varying the current supplied.

Establishing a prima facie case of obviousness requires the reference teach or render obvious all the elements of the inventive combination of the rejected claims. Dependent claims set forth in the present application include all of the limitations of the claims from which they depend. Therefore, these combinations must also be taught or rendered obvious by the cited reference.

Claims 17, 22, 28 and 33 incorporate all of the limitations of independent claims 13, 19, 24 and 30 from which they depend respectively and further defines the invention over the art cited by the Examiner. Applicant maintains that when combined with Sakaguchi and Jensen, Sato still fails to remedy the deficiencies of Sakaguchi in view of Jensen since nothing in the specification and figures of Sato teaches a linear encoder

which is connected to said control arrangement and whereby the position of said valve obturating member along said flow path is determinable, as required by the present invention. Sato does not teach any valve the position of which is determined by use of the linear encoder 19, although there are many valves disclosed. The supposed linear encoder 19 of Sato appears to be used for detecting the displacement amount of a piston 7 accommodated in a cylinder 2 in order to feed an obtained detection signal to a piston speed controller 15. See Abstract, Fig. 1, and Col. 3, lines 1-8 of Sato. Although that controller 15 itself controls the positions of valves such as the selector valve 13 and speed controllers 11a and 11b which appear to be the equivalent of valves, the Applicant has been unable to find anywhere in Sato a disclosure that the linear encoder 19 determines the position of any one of those valves. The Applicant therefore, again, respectfully requests that the Examiner indicate where, in Sato, use of the linear encoder 19 to determine the position of one of the valves is disclosed. Applicant maintains that the proposed combination does not teach or render obvious claims 17 and 22 combined with claims 13 and 19 respectively and claims 28 and 33 combined with claims 24 and 30 respectively. Therefore, removal of the rejection of claims 17, 22, 28, and 33 and allowance thereof is respectfully requested.

7. Rejection of Claims 17, 22, 28, and 33 Under 35 U.S.C. § 103(a)

Claims 17, 22, 28, and 33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,758,071 to Anderson et al. (hereafter "Anderson") in view of U.S. Patent No. 4,782,860 to Sakaguchi et al (hereafter "Sakaguchi") in view of U.S. Patent No. 5,351,934 to Jensen et al. (hereafter "Jensen") in view of U.S. Patent

No. 6,230,606 to Sato. Applicant requests reconsideration of the rejection based on the following remarks.

The Office Action states that Anderson lacks a linear encoder to determine the position of the valve and that Sato discloses a linear encoder 19 to determine the position of the valve. The Office Action states that it would have been obvious to use a linear encoder as disclosed by Sato in the valve of Anderson in order to fix the position of the valve by varying the current supplied.

Establishing a prima facie case of obviousness requires the reference teach or render obvious all the elements of the inventive combination of the rejected claims. Dependent claims set forth in the present application include all of the limitations of the claims from which they depend. Therefore, these combinations must also be taught or rendered obvious by the cited reference.

Claims 17, 22, 28 and 33 incorporate all of the limitations of independent claims 13, 19, 24 and 30 from which they depend respectively and further defines the invention over the art cited by the Examiner. Again, the Examiner has not responded to the request by the Applicant to indicate where, in Sato, use of the linear encoder 19 to determine the position of one of valves is disclosed. Applicant maintains that the proposed combination does not teach or render obvious claims 17 and 22 combined with claims 13 and 19 respectively and claims 28 and 33 combined with claims 24 and 30 respectively. Therefore, removal of the rejection of claims 17, 22, 28, and 33 and allowance thereof is respectfully requested.

8. Rejection of Claims 18, 23, 29, and 33 Under 35 U.S.C. § 103(a)

Claims 18, 23, 29, and 33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,782,860 to Sakaguchi et al (hereafter "Sakaguchi") in view of U.S. Patent No. 4,690,371 to Bosley (hereafter "Bosley") in view of U.S. Patent No. 3,604,480 to Reichert et al. (hereafter "Reichert"). Applicant requests reconsideration of the rejection based on the following remarks. In addition, Applicant respectfully submits that the Office Action is silent regarding claim 34 of the present invention. Applicant believes that Examiner's rejection is intended to be directed toward claim 34; not 33. Therefore Applicant's remarks are directed toward claims 18, 23, 29, and 34.

The Office Action states that Sakaguchi lacks a mention of using the valve in a filler of a machine to fill containers and that Reichert discloses containers at the outlet of the valve. The Office Action states that it would have been obvious to one having ordinary skill in the art at the time the invention was made to use containers as disclosed by Reichert in the system of Sakaguchi in order to be able to store the fluid valved.

Establishing a prima facie case of obviousness requires the reference teach or render obvious all the elements of the inventive combination of the rejected claims. Dependent claims set forth in the present application include all of the limitations of the claims from which they depend. Therefore, these combinations must also be taught or rendered obvious by the cited reference. Furthermore, a prima facie case of obviousness cannot be established where one or more of the references in the proposed combination teaches away from the proposed combination. *In re Grassili* 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed Cir. 1983).

Claims 18, 23, 29, and 34 incorporate all of the limitations of independent claims 13, 19, 24 and 30 from which they depend respectively and further defines the invention over the art cited by the Examiner. The Office Action asserts that it would have been obvious to have used containers as disclosed by Reichert in the system of Sakaguchi in order to be able to store the fluid valved. As stated at lines 14 to 19 of column 1 of Sakaguchi, its invention relates to a fluid control valve used in a fluid circuit for intentionally moving or driving fluid equipment; thus, storing the valved fluid in containers would have been totally irrelevant to the invention of Sakaguchi. Applicant maintains that the proposed combination does not teach or render obvious claims 18 and 23 combined with claims 13 and 19 respectively and claims 29 and 34 combined with claims 24 and 30 respectively. Therefore, removal of the rejection of claims 18, 23, 29, and 34 and allowance thereof is respectfully requested.

9. Rejection of Claims 18, 23, 29, and 33 Under 35 U.S.C. § 103(a)

Claims 18, 23, 29, and 33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,758,071 to Anderson et al. (hereafter "Anderson") in view of U.S. Patent No. 4,782,860 to Sakaguchi et al (hereafter "Sakaguchi") in view of U.S. Patent No. 4,690,371 to Bosley (hereafter "Bosley") in view of U.S. Patent No. 3,604,480 to Reichert et al. (hereafter "Reichert"). Applicant requests reconsideration of the rejection based on the following remarks. In addition, Applicant respectfully submits that the Office Action is silent regarding claim 34 of the present invention. Applicant believes that Examiner's rejection is intended to be directed toward claim 34; not 33. Therefore Applicant's remarks are directed toward claims 18, 23, 29, and 34.

The Office Action states that Anderson lacks a mention of using the valve in a filler of a machine to fill containers and that Reichert discloses using the valve in a filler of a machine to fill containers. The Office Action also states that it would have been obvious to use containers as disclosed by Reichert in the system of Anderson in order to be able to store the fluid valved.

Establishing a prima facie case of obviousness requires the reference teach or render obvious all the elements of the inventive combination of the rejected claims. Dependent claims set forth in the present application include all of the limitations of the claims from which they depend. Therefore, these combinations must also be taught or rendered obvious by the cited reference. Furthermore, a prima facie case of obviousness cannot be established where one or more of the references in the proposed combination teaches away from the proposed combination. *In re Grassili* 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed Cir. 1983).

Claims 18, 23, 29 and 34 incorporate all of the limitations of independent claims 13, 19, 24 and 30 from which they depend respectively and further defines the invention over the art cited by the Examiner. The Office Action asserts that it would have been obvious to have used containers as disclosed by Reichert in the system of Anderson in order to be able to store the fluid valved. As made clear by, for example, Claim 1 (at line 26 of column 4) of Anderson, its invention is directed to a hydraulic fluid pressure control valve apparatus, so that storing of the fluid valved would have been irrelevant to its invention. Applicant maintains that the proposed combination does not teach or render obvious claims 18 and 23 combined with claims 13 and 19 respectively and claims 29 and 34 combined with claims 24 and 30 respectively. Therefore, removal of

the rejection of claims 18, 23, 29, and 34 and allowance thereof is respectfully requested.

10. Rejection of Claims 18, 23, 29, and 33 Under 35 U.S.C. § 103(a)

Claims 18, 23, 29, and 33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,782,860 to Sakaguchi et al (hereafter "Sakaguchi") in view of U.S. Patent No. 5,351,934 to Jensen et al. (hereafter "Jensen") in view of U.S. Patent No. 3,604,480 to Reichert et al. (hereafter "Reichert"). Applicant requests reconsideration of the rejection based on the following remarks. In addition, Applicant respectfully submits that the Office Action is silent regarding claim 34 of the present invention. Applicant believes that Examiner's rejection is intended to be directed toward claim 34; not 33. Therefore Applicant's remarks are directed toward claims 18, 23, 29, and 34.

The Office Action states that Sakaguchi lacks a mention of using the valve in a filler of a machine to fill containers and that Reichert discloses containers at the outlet of the valve. The Office Action also states that it would have been obvious to use the containers as disclosed by Reichert in the system of Sakaguchi in order to be able to store the fluid valved.

Establishing a prima facie case of obviousness requires the reference teach or render obvious all the elements of the inventive combination of the rejected claims. Dependent claims set forth in the present application include all of the limitations of the claims from which they depend. Therefore, these combinations must also be taught or rendered obvious by the cited reference.

Claims 18, 23, 29 and 34 incorporate all of the limitations of independent claims 13, 19, 24 and 30 from which they depend respectively and further defines the invention over the art cited by the Examiner. The Applicant respectfully submits that this rejection is additionally unjustified for the same reason as under paragraph 8 above. Applicant maintains that the proposed combination does not teach or render obvious claims 18 and 23 combined with claims 13 and 19 respectively and claims 29 and 34 combined with claims 24 and 30 respectively. Therefore, removal of the rejection of claims 18, 23, 29, and 34 and allowance thereof is respectfully requested.

11. Rejection of Claims 18, 23, 29, and 33 Under 35 U.S.C. § 103(a)

Claims 18, 23, 29, and 33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 3,758,071 to Anderson et al. (hereafter "Anderson") in view of U.S. Patent No. 4,782,860 to Sakaguchi et al (hereafter "Sakaguchi") in view of U.S. Patent No. 4,690,371 to Bosley (hereafter "Bosley") in view of U.S. Patent No. 3,604,480 to Reichert et al. (hereafter "Reichert"). Applicant requests reconsideration of the rejection based on the following remarks. In addition, Applicant respectfully submits that the Office Action is silent regarding claim 34 of the present invention. Applicant believes that Examiner's rejection is intended to be directed toward claim 34; not 33. Therefore Applicant's remarks are directed toward claims 18, 23, 29, and 34.

The Office Action states that Anderson lacks a mention of using the valve in a filler of a machine to fill containers and that Reichert discloses containers at the outlet of the valve. The Office Action also states that it would have been obvious to use the containers as disclosed by Reichert in the system of Anderson in order to be able to store the fluid valved.

Establishing a prima facie case of obviousness requires the reference teach or render obvious all the elements of the inventive combination of the rejected claims. Dependent claims set forth in the present application include all of the limitations of the claims from which they depend. Therefore, these combinations must also be taught or rendered obvious by the cited reference. Furthermore, a prima facie case of obviousness cannot be established where one or more of the references in the proposed combination teaches away from the proposed combination. *In re Grassili* 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed Cir. 1983).

Claims 18, 23, 29 and 34 incorporate all of the limitations of independent claims 13, 19, 24 and 30 from which they depend respectively and further defines the invention over the art cited by the Examiner. Applicant respectfully submits that this objection is additionally unjustified for the reason given under paragraph 9 above. Applicant maintains that the proposed combination does not teach or render obvious claims 18 and 23 combined with claims 13 and 19 respectively and claims 29 and 34 combined with claims 24 and 30 respectively. Therefore, removal of the rejection of claims 18, 23, 29, and 34 and allowance thereof is respectfully requested.

12. Response to Arguments

It is respectfully noted that the Examiner did not in fact comment upon the Applicants' arguments, all of which still apply in spite of the introduction of Bosley, which does not add anything relevant.

CONCLUSION

It is respectfully submitted that in view of the above amendments and remarks the claims 13-34, as presented, are patentably distinguishable because the cited

patents, whether taken alone or in combination, do not anticipate or render obvious, the claims of the present invention. Therefore, Applicants submit that the pending claims are properly allowable, which allowance is respectfully requested.

The Examiner is invited to telephone the Applicant's undersigned attorney at (248) 364-4300 if any unresolved matters remain.

Respectfully submitted,

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